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Chatterjee et al.(10) **Pub. No.: US 2010/0162109 A1**(43) **Pub. Date: Jun. 24, 2010**(54) **USER INTERFACE HAVING CHANGEABLE TOPOGRAPHY**(76) Inventors: **Shuvo Chatterjee**, Cupertino, CA (US); **Quin C. Hoellwarth**, Cupertino, CA (US)

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G06F 3/01 (2006.01)(52) **U.S. Cl.** **715/702; 715/765**(57) **ABSTRACT**

A user interface having changeable topography is disclosed. The user interface can have a shape changeable surface that can selectively alter according to an input so as to provide changeable topography of the user interface. The surface can include individual nodes that can raise above or lower below the initial surface. Alternatively, the surface can include a shape changeable material that can change the shape of portions thereof into discrete shapes above or below the initial surface. Alternatively, the surface can include a deformable material that can deform portions thereof into discrete forms above or below the initial surface. The changeable topography can define different user interface layouts. The user interface can, for example, be associated with input and/or output devices, such as touch pads, touch screens, and the like.

